



Motor Vehicle Maintenance

Your motor vehicle can be a source of water pollution even if it is not near the water. Oil spilled on a driveway or parking lot and outdoor spills of antifreeze, brake fluid, and other automotive fluids can be washed away by rain into streams and the ocean. There, they can harm aquatic life and make the water unpleasant and sometimes unsafe to swim or fish in. Washing your vehicle can also cause pollution if the dirty water flows into a storm drain and on to the ocean. However, there are several things that you can do to reduce the risks of water pollution from your vehicles.

Vehicle maintenance

Proper vehicle maintenance and appropriate disposal of waste oil, antifreeze, and other fluids will greatly reduce water pollution risks. Some specific things you can do to reduce your risk are listed below:

- Keep your vehicle in good running condition to prevent oil and fluid leaks.
- Use a pan, a scrap of carpet, or matting to catch drips.
- If you change your own oil, be careful to avoid spills and dispose of the oil by using an oil-change box on Oahu or collecting it for recycling on other islands.
- Store oily car parts and fluid containers where rain and runoff cannot reach them.
- Never dump used oil, antifreeze, or gasoline down a storm drain, in a ditch, or on the ground. You should recycle these fluids if possible. Refer to HAPPI-Home 4, *Managing hazardous household products*, for more information.
- Properly dispose of old automobile batteries by recycling them or taking them to an approved disposal facility. Because batteries contain acids and heavy metals like lead and zinc which are poisonous to humans, animals, and marine life, improper disposal can cause serious water pollution. Refer to HAPPI-Home 4, *Managing hazardous household products*, for more information.

Washing your vehicle

Washing your vehicle can cause water pollution. If you live in an urban area and wash your vehicle on the street, in a driveway, or in a paved parking lot, the dirty, soapy water drains off and flows directly into the storm drain, picking up oil and other pollutants as it goes. A better option is to wash your car in an approved car-washing area of your building where water goes into the sewer system, or to take it to a commercial car wash or spray booth that sends its dirty water into the sewer system. If you are using the car-wash area in your building or condominium complex, be sure to check that the water drains into the sewer system and doesn't just flow out of the parking lot and into the nearest storm drain.

The next best option is to wash your car on your lawn or another unpaved area where the dirty water can soak into the ground. That way most pollutants will be absorbed in the soil. Be careful not to wash your car on an area with bare soil or on a steep slope, because the wash water will run off before it can soak in, carrying any pollutants with it, including eroded soil.

Vehicle washing seldom causes water pollution in rural areas as long as you take a few simple precautions. Wash your vehicle on a relatively level place with grass or other groundcover where the wash water can soak into the ground. Do not wash your vehicle on steeply sloping areas or areas with bare soil, because the water runoff may cause soil to be washed away. Also, check to make sure that the dirty water is not flowing directly into a stream or other water body, or flowing toward your drinking water well if you have one on your property.

Wherever you are washing your vehicle, you can reduce the risk of causing water pollution by doing the following four things:

- Use a mild soap that does not contain phosphates, such as a mild dish detergent; use a biodegradable or "environmentally friendly" soap if possible.

- Reduce the amount of soap you need to use by using bucket to hold soapy water instead of putting soap on a rag or sponge and spraying it directly with a hose.
- Dump the bucket of soapy water down the toilet if you are in an urban or suburban area, or in a vegetated area away from streams, ditches, and wells if you are in a rural area.
- Use specialty cleaning products, including waxes, only when necessary, and always use and dispose of them according to label directions.

Assessing your risks

Complete the risk assessment table on page 3 to determine the water pollution risks from your motor vehicle maintenance. For each category, choose the set of practices that best fits your situation. Then, go to page 4 and develop an action plan to minimize water pollution on your property.

Contacts

For information on safe disposal of various automotive wastes or used parts, see HAPPI-Home 4, *Managing hazardous household products* and 5, *Think before you dump it—safe disposal of hazardous products*.

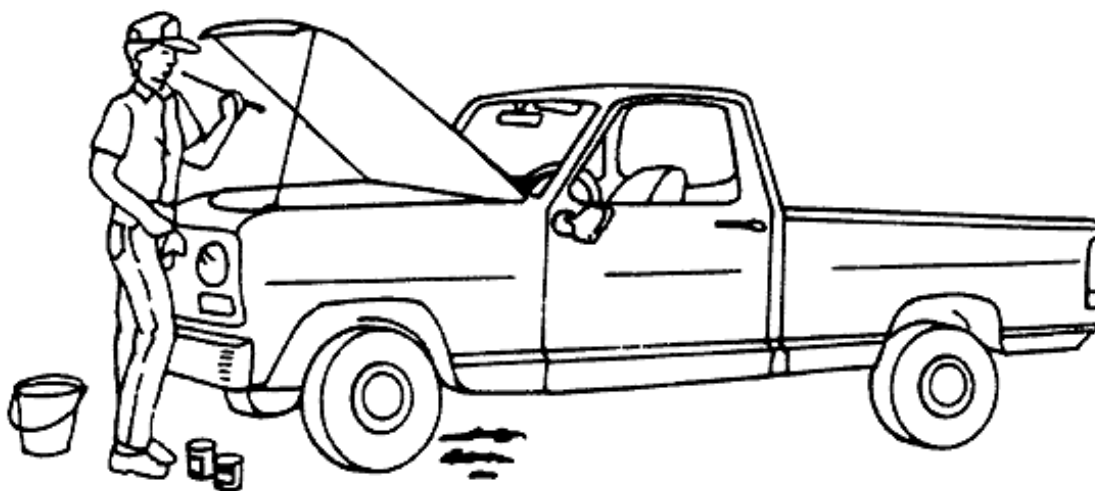
For information on waste oil disposal, call your local county waste management office:

Oahu: Dept. of Environmental Services, 523-4774

Maui, Molokai, Lanai: Dept. of Public Works, 270-7880

Hawaii: Recycle Hawaii, 329-2886 or 961-2676

Kauai: Solid Waste Office, 241-6880



Careless disposal of used motor vehicle oil on the ground is a water pollution hazard. Use an inexpensive oil-change box to prevent this contamination.

Risk Assessment Table for Motor Vehicle Maintenance

	Low risk	Moderate risk	High risk	Your risk
Vehicle maintenance	Oil drips and fluid spills are cleaned up; dirty car parts and other vehicle wastes are kept out of reach of stormwater runoff; used car parts, rags, and paper towels are disposed of properly	Drips and small spills are not cleaned up; dirty car parts, rags and paper towels are left on unpaved areas outside	Large spills are not cleaned up; used car parts, rags, and paper towels are not disposed of properly	<input type="checkbox"/> low <input type="checkbox"/> moderate <input type="checkbox"/> high
Antifreeze, waste motor oil, other fluids (e.g., brake fluid)	Antifreeze, waste oil, and other waste fluids are recycled by taking them to properly qualified dumping stations or waste oil is drained into an oil change box and put in Honolulu municipal trash	Used antifreeze is poured into a septic system or municipal treatment system	Used antifreeze, waste oil, or other waste fluid is dumped on the ground, into a storm drain or directly into a stream or the ocean	<input type="checkbox"/> low <input type="checkbox"/> moderate <input type="checkbox"/> high
Batteries	Batteries are recycled or taken to a hazardous waste disposal program	Batteries are disposed of in a community landfill	Batteries aren't recycled or disposed of in a community landfill	<input type="checkbox"/> low <input type="checkbox"/> moderate <input type="checkbox"/> high
Washing location	Urban vehicles taken to a commercial wash or spray booth or washed in a special car-wash area in condominium and apartment complexes; rural vehicles washed on flat, vegetated area away from water bodies	Urban cars, trucks, or other items are washed on a relatively flat lawn or gravel drive; rural vehicles washed on paved driveway surrounded by vegetated and/or gravel areas	Urban or rural vehicles are washed on a paved driveway or street where runoff goes into a storm drain or are washed on bare ground, or steeply sloping areas	<input type="checkbox"/> low <input type="checkbox"/> moderate <input type="checkbox"/> high
Washing supplies	Minimum amount of mild or biodegradable soap used; concentrated wash water disposed into sewer systems; seldom use specialty cleaning products; always read and follow label directions when using specialty products	Use moderate amounts of mild soap and specialty products; don't always read the label when using specialty products	Use any soap that is available; don't worry about using too much; regularly use specialty cleaning products without reading the label or following label directions	<input type="checkbox"/> low <input type="checkbox"/> moderate <input type="checkbox"/> high

Your action plan

Now that you have assessed your management practices, you can take action to change practices that may be causing water pollution. For areas that you identified as high or moderate risk, decide what action you need to take and fill out the Action Plan below.

Write down all your moderate-risk and high-risk activities below	What can you do to reduce the potential risk for water pollution?	Set a target date for action
Samples of action items:		
<i>I live in Honolulu and wash my car in a paved condo parking lot every weekend</i>	<i>Take car to car wash at the gas station down the street</i>	<i>Next Saturday</i>



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